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NOTICE OF ALLOWANCE AND FEE(S) DUE

48233 7590 10/08/2008

SCULLY, SCOTT, MURPHY & PRESSER, P.C.
400 GARDEN CITY PLAZA
SUITE 300
GARDEN CITY, NY 11530

EXAMINER

CHEA, PHILIP J

ART UNIT

PAPER NUMBER

2153

DATE MAILED: 10/08/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/658,311

09/09/2003

Andreas Herkersdorf

CH920020009US1

2148

TITLE OF INVENTION: METHOD FOR PROCESSING A DATA PACKET

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	01/08/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

48233 7590 10/08/2008

SCULLY, SCOTT, MURPHY & PRESSER, P.C.
400 GARDEN CITY PLAZA
SUITE 300
GARDEN CITY, NY 11530

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,311	09/09/2003	Andreas Herkersdorf	CH920020009US1	2148

TITLE OF INVENTION: METHOD FOR PROCESSING A DATA PACKET

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	01/08/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
CHEA, PHILIP J	2153	709-238000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,311	09/09/2003	Andreas Herkersdorf	CH920020009US1	2148
48233	7590	10/08/2008	EXAMINER	
SCULLY, SCOTT, MURPHY & PRESSER, P.C. 400 GARDEN CITY PLAZA SUITE 300 GARDEN CITY, NY 11530			CHEA, PHILIP J	
			ART UNIT	PAPER NUMBER
			2153	
DATE MAILED: 10/08/2008				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 915 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 915 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	10/658,311	HERKERSDORF ET AL.	
	Examiner	Art Unit	
	PHILIP J. CHEA	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed July 9, 2008.
2. ☒ The allowed claim(s) is/are 2,4-10 and 16.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 20080923.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|---|---|

Art Unit: 2153

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Steven Fischman 34,594 on September 23, 2008.

The application has been amended as follows:

IN THE CLAIMS:

Please see attached.

IN THE SPECIFICATION:

DRAWINGS: In Fig. 5: "Indexs" is apparently "Indexes". This occurs three times along the dotted arrow lines.

2. The following is an examiner's statement of reasons for allowance: The prior art does not teach nor render obvious each and every limitation of the claimed invention. Specifically, the prior art does not teach that the default-route-prefix is a shortest prefix that covers only destination IP addresses that have no matching prefix in the routing table and that the first lookup step for the destination IP address being a prefix thereof is searched in the routing table cache and when not found being searched in the routing table and then when the second lookup step finds the destination address prefix, the found destination is entered into the routing table cache.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHILIP J. CHEA whose telephone number is (571)272-3951. The examiner can normally be reached on M-F 6:30-4:00 (1st Friday Off).

Art Unit: 2153

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Glenton B. Burgess/
Supervisory Patent Examiner, Art Unit 2153

Philip J Chea
Examiner
Art Unit 2153

PJC 9/23/08

Art Unit: 2153

Claim 1. (Canceled)

Claim 2. (Currently Amended) The method as recited in claim [[1]] 4, wherein the default-route-prefix (P_d) is determined to be said prefix of at least the destination IP address (d).

Claim 3. (Canceled)

Claim 4. (Currently Amended) ~~[[The]]~~ A method comprising: as recited in claim 3
processing a data packet, having a destination IP address (d), towards a routing destination;
determining a default-route-prefix (P_d) that is a part of the destination IP address (d) and is
provided only in a routing table cache (L_1) during a default-route determination step, when in the routing
table cache (L_1) and in a routing table (L_2), there is no entry with a destination address prefix that is a
prefix of the destination IP address (d), wherein the default-route-prefix (P_d) is a shortest prefix that
covers only destination IP addresses that have no matching prefix in the routing table (L_2),
wherein the routing table cache (L_1) comprises a prefix that is a part of another destination IP
address and the destination IP address (d);
performing a first lookup step for the destination IP address (d), the destination address prefix
being a prefix of the destination IP address (d) is searched in the routing table cache (L_1), and,
if said first lookup step results in not finding such destination address prefix, performing a second
lookup step for said destination IP address (d), the destination address prefix being a prefix of the
destination IP address (d) is searched in the routing table (L_2),
wherein if the second lookup step on the routing table (L_2) results in finding the destination
address prefix being said prefix of the destination IP address (d) a matching destination address prefix,

Art Unit: 2153

the found destination address prefix entry is entered into the routing table cache (L_1) in a cache update step, and the data packet is forwarded in a destination forwarding step to a corresponding routing destination.

Claim 5. (Currently Amended) The method as recited in claim [[3]] 4, wherein if the second lookup step results in not finding the destination address prefix being said prefix of the destination IP_address (d), in a default forwarding step the data packet is forwarded to a default routing destination.

Claim 6. (Currently Amended) The method as recited in claim [[1]] 4, wherein in a default-route caching step, the default-route-prefix (P_d) is entered together with a default routing destination as an entry into the routing table cache (L_1).

Claim 7. (Currently Amended) The method as recited in claim [[3]] 4, wherein in the first lookup step the routing table cache (L_1) is searched for covering path entries that reside in the routing table cache (L_1), the covering path entries covering all prefixes that exist in the routing table (L_2).

Claim 8. (Previously Presented) The method as recited in claim 7, wherein in an event that the first lookup step results in finding no covering path entry for the destination IP address (d), the data packet is forwarded to a default routing destination in a default forwarding step.

Claim 9. (Previously Presented) The method as recited in claim 7, wherein in an event that the first lookup step results in finding one of said covering path entry for the destination IP address (d), in the second lookup step for said destination address (d) the destination address prefix being said prefix of the destination address (d) is searched in the routing table (L_2).

Art Unit: 2153

Claim 10. (Currently Amended) The method as recited in claim [[3]] 4, wherein in an event that the first lookup step results in finding the destination address prefix being said prefix of the destination IP address (d), the data packet is forwarded in a destination forwarding step to a corresponding routing destination.

Claim 11. (Canceled)

Claim 12 – 15. (Canceled)

Claim 16. (Currently Amended) An apparatus for routing data packets comprising:

means a router device for processing a data packet, said data packet having a destination IP address (d), towards a routing destination; and said router device having an associated memory for supporting routing table cache (L_1) and routing table (L_2);

means implemented by said router device for determining a default-route-prefix (P_d) that is a part of the destination IP address (d) and is provided only in [[a]] the routing table cache (L_1) during a default-route determination step, when in the routing table cache (L_1) and in [[a]] the routing table (L_2), there is no entry with a destination address prefix that is a said prefix of the destination IP address (d), wherein the default-route-prefix (P_d) is a shortest prefix that covers only destination IP addresses that have no matching prefix in the routing table (L_2),

wherein the routing table cache (L_1) comprises a prefix that is a part of another destination IP address and the destination IP address (d).

wherein said means implemented by said router device performs a first lookup step for the destination IP address (d), the destination address prefix being a prefix of the destination IP address (d) is searched in the routing table cache (L_1), and,

if said first lookup step results in not finding such destination address prefix, said means implemented by said router device performs a second lookup step for said destination IP address (d), the

Art Unit: 2153

destination address prefix being a prefix of the destination IP address (d) is searched in the routing table

(L_2),

wherein if the second lookup step in the routing table (L_2) results in finding the destination address prefix being said prefix of the destination IP address (d) a matching destination address prefix, the found destination address prefix entry is entered into the routing table cache (L_1) in a cache update step, and the data packet is forwarded in a destination forwarding step to a corresponding routing destination.

Claim 17. (Canceled)

Claim 18. (Currently Amended) A computer program product comprising a computer usable medium having computer readable program code means embodied therein for causing a processing of a data packet, the computer readable program code means in said computer program product comprising computer readable program code means for causing a computer to effect the steps of claim [[1]] 4.

Claim 19. (Canceled)